## A survey on vehicle registration code: association between on-the- road population and their vehicle registration states

## **ABSTRACT**

Every registered vehicle in Malaysia has a specific vehicle registration code consisting of alphabets and numbers displayed on the front and rear part of the vehicle. Whenever there is an incident related to a particular vehicle, this registration code can be used to retrieve information about the vehicle based on the data in the registry maintained by Malaysian Road Transport Department. The information can subsequently assist in tracing the motor vehicle and its owner or to assess witness's statement. However, our current vehicle registration system in Malaysia that uses alphabets to represent different territories or states could raise difficulties during an investigation especially if the registration number on the car plate could not be identified confidently by a witness whether or not the registration code in questioned could have from a particular state and involved in the incident under investigation. Therefore, the distribution of car registration code in Kelantan state was investigated, aiming to estimate the frequency of locally registered vehicle compared to those registered in other states of Malaysia as indicated by the alphabets. In this study, two car parking areas, one designated for general public and the other for university staff, were chosen (n=1000), surveyed and statistically analysed. Frequency and percentage in term of state of registration reflected by the initial alphabet for respective car parks were evaluated. Pearson's Chi Square ( $\chi$ 2) test was used to investigate if there is association between the two car parks based on plate numbers with "D" which indicate those cars registered in Kelantan, and cars with non-"D" plates that pertain to the other states. Our study shows higher percentage of vehicles carrying "D" (515, 51.5%) and "W" (234, 23.4%) plates in the study area. Statistical test suggests no significant association between the two car parks and "D" plated cars (p-value=0.067, >0.05), supporting the claim that the majority of the residents own cars registered in Kelantan state, regardless of their state of origin. For forensic intelligence, information from this study could strengthen the probative opinion and forensic significance when exploring information based on vehicle registration code, particularly in cases involving vehicles.

**Keyword:** Vehicle registration number; Survey; Frequency distribution; Pearson's Chi Square Test